

A NEW SPECIES OF GENUS *LITHURGUS* LATREILLE,
(HYMENOPTERA: APOIDEA: MEGACHILIDAE), FROM INDIA¹RAJIV K. GUPTA² AND V. K. TEWARI³

(With five text-figures)

The genus *Lithurgus* Latreille, from India was represented by 5 species: *atratus* Smith, *dentipes* Smith, *australior* Cockerell, *taprobanae* Cameron and *lissopoda* (Cameron). A new species *Lithurgus (Lithurgopsis) tiwarii* has been described for the first time from Pondicherry (India). It has some affinities with *L. australior* Cockl.

The genus *Lithurgus* Latreille, from Indian region was so far represented by 5 species namely: *Lithurgus (Lithurge) atratus* Smith, *L. (L.) dentipes* Smith, *L. australior* Cockerell, *L. taprobanae* Cameron and *L. lissopoda* (Cameron). The subgeneric placement of the former two species has been done by Michener (1965). Following are the characters which can distinctly separate genus *Lithurgus*, from rest of the megachiline genera:

'jugal lobe in posterior wing about 3/4th as long as vannal lobe; vestibule reaching upto mid-mesosomal segment; dorsally, hind tibiae coarsely or finely spiculate and pygidial area well developed in male, in female represented by a short spine'.

The new species described here, falls under subgenus *Lithurgopsis* Fox, on the basis of the following characters:

Facial mid-line may or may not carinate but never grooved; claws with well developed pulvellus in males; abdominal (tergal and sternal) apical fasceae may be lacking, widely interrupted or feebly developed; only 6 sternal

plates are exposed in males, 7th & 8th retracted.

***Lithurgus (Lithurgopsis) tiwarii*⁴ sp. nov.**

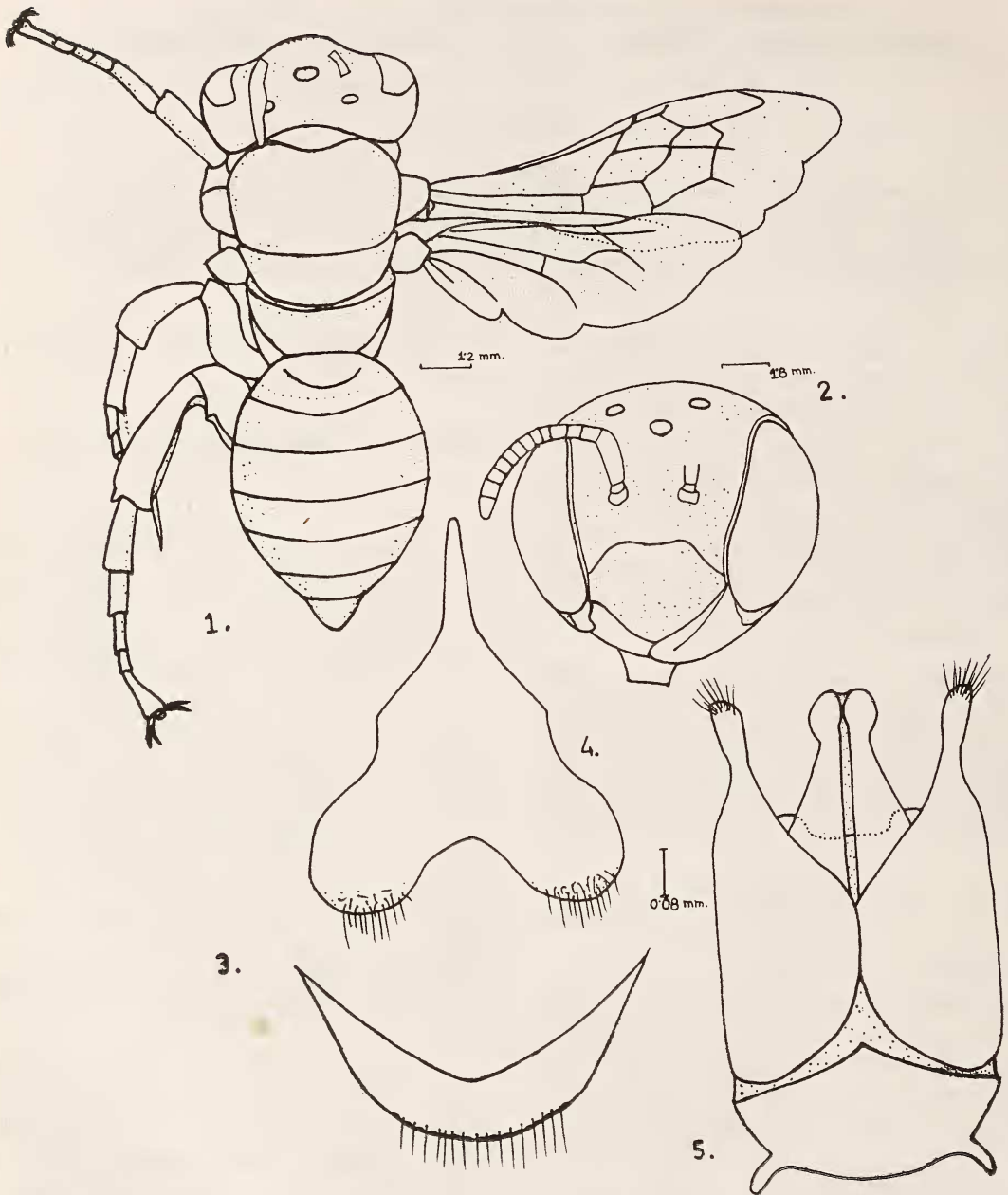
MALE:

Integument of head and thorax with rugose appearance, abdomen shining; facial pubescence golden yellow, rest of the body with silky-white (plumose) hairs, last tergite with thick black bristles; integument black.

Head wider than the median length; inner eye margin convergent below and incurved at median area, carina distinct and close to eye; 2/3rd of the clypeus base strongly convex, margin feebly incurved; maximum width of parocular area equal to the basal width of clypeus; median line indistinct; vertex margin slightly incurved and incarinate; genae narrowed below and hypostomal area with dense pale pubescence; mandible tridentate.

Pronotal ridge low and obscure; scutum evenly convex; notauli not at all markable; scutellar surface resembles scutum, posterior margin broadly rounded; median length of propodeal triangle is about twice that of median groove below; wing colour clear hyaline, veins brownish-black, both recurrent veins reaches at the base and apex of the second

¹ Accepted March 1986.² Division of Entomology, Indian Agricultural Research Institute, New Delhi 110 012. Present address: Dept. of Zoology, Government College, Dholpur-328 001, Rajasthan, India.³ Lecturer, Department of Zoology, Agra College, Agra, India.⁴ After the name of one of the authors.



Figs. 1-5. *Lithurgus (Lithurgopsis) tiwarii* sp. nov., ♂
1. adult full dorsal view; 2. head front view; 3. sternum 7th; 4. sternum 8th;
5. genitalia.
(Dots on figs. 1 & 2 indicate pubescence).

NEW DESCRIPTIONS

cuboital cell. Apical margin of coxae shallowly grooved and with a smooth tubercle at trochanter base attachment; apical width of trochanter lesser than its median length; fore leg femora with a subdivided carinate ridge at apex (dorsally), spur testaceous yellow, bifurcated and with a fine fringe of hairs at the apices.

Basal tergum with concavity margin incarinate but hairy, apical margin with rudimentary fringe at lateral sides; in tergite 2-5: graduli indistinct & apical fasceae absent at midline; tergum 7th apical margin broadly rounded, medially thick and in 8th sternum, median invagination of apical lobe is quite deep with both halves bearing dense fringes projecting apically.

Gonocoxites protuberent upto medio-basal area, broadly convex; stipites dorso-ventrally flattened and with a broad apex, lobate; either sides of the basal margin of gonobase are produced to acuteness.

Measurements: (in mm.) Total length 8.5; eyes: length 2.07, lateral width 1.0; clypeus: median length 0.9, basal width 0.42, apical width 1.5; antennae; length of scape 0.65, pedicel 0.25, flagellar segments Ist - 0.22, IIInd - 0.1, XIth - 0.23; labrum: median length 1.05, basal & apical width 1.25 & 0.9; mandible: length of lower & dentate margins 2.0 & 0.9; labial palpi: length of segment Ist 2.0 & IIInd 4.0; scutum: median length 2.25 & maximum width 2.75; total length of fore wing 6.5; relative

median width of tergite I to VII: 2.5, 3.25, 4.0, 3.2, 2.75, 1.5, 0.5.

FEMALE: not known.

Material examined: Holotype: male, paratype: 1 male both type specimens are at I.A.R.I., New Delhi.

Collection: Holotype as well paratype were collected from Mahatma Gandhi Park, Pondicherry (m.s.l.) on 4.vii.1981 (Gupta).

Flower record: *Solanum* sp.

Remarks: The new species is close to *australior* Ckockll. with respect to the subgeneric characters, detailed above (*australior* has also been placed under subgenus *Lithurgopsis* Fox), however, *australior* can be distinctly separated *tiwarii* sp. nov. by:

“clypeal protuberence limited upto half of the basal region; facial pubescence white; fore tibial dorso-apical projection absent; abdomen comparatively much elongated, apical margin of VIIth tergum with a prominent median spine; lateral acute projections of gonobase absent, stipites narrowed down gradually and penis valve wide”.

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